

IN THE CLAIMS

Please cancel claims 5-11, 15, 18, and 20 without prejudice.

Please amend claim 13 as follows below.

1       1. (Original) A computer system comprising:  
2           a memory;  
3           a register file coupled to the memory through a memory  
4       channel, the register file to store data for one or more  
5       procedures in one or more frames, respectively; and  
6           a register stack engine to monitor activity on the memory  
7       channel and to transfer data between selected frames of the  
8       register file and the memory responsive to available bandwidth  
9       on the memory channel.

1       2. (Original) The computer system of claim 1, wherein  
2           the memory includes a backing store  
3           and  
4           the register stack engine transfers data between the  
5       selected frames and the backing store.

1       3. (Original) The computer system of claim 1, wherein

2        a portion of the register file is organized as a register  
3    stack.

1        4.    (Original) The computer system of claim 3, wherein  
2        the register stack engine includes a first pointer to  
3        indicate a first location in a current frame of the register  
4    stack.

1        5-11.      (Cancelled)

1        12.   (Original) A method for managing data in a register  
2    stack comprising:

3        designating registers in the register stack as clean or  
4        dirty, according to whether data in the registers has been  
5        spilled to a backing store;  
6        monitoring operations on a memory channel; and  
7        spilling data from a current oldest dirty register to the  
8    backing store when capacity is available on the memory channel.

1        13.   (Currently Amended) The method of claim 12, further  
2    comprising  
3        updating a ~~first~~ pointer to indicate a new oldest dirty  
4        register when data is spilled from the ~~current~~ current oldest  
5        dirty register.

1       14. (Original) The method of claim 12, further comprising  
2           filling data from the backing store to a current oldest  
3           clean register when capacity is available on the memory channel.

1       15. (Cancelled)

1       16. (Original) A computer system comprising:  
2           a memory system;  
3           a register file to store data for an active procedure and  
4           one or more inactive procedures; and  
5           a register stack engine to transfer data between registers  
6           associated with the one or more inactive procedures and the  
7           memory system, responsive to available bandwidth to the memory  
8           system.

1       17. (Original) The computer system of claim 16, wherein  
2           the computer system further comprises  
3           a load/store unit  
4           and  
5           the register stack engine monitors the load/store unit to  
6           determine available bandwidth to the memory system.

1       18. (Cancelled)

1       19. (Original) The computer system of claim 16, wherein  
2           the register stack engine transfers data for inactive  
3       procedures responsive to a mode status indicator.

1       20. (Cancelled)

1       21. (Original) The computer system of claim 19, wherein  
2           the mode status indicator is set under software control  
3       responsive to a type of application to run on the computer  
4       system.